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on Sleep.

on Sleep

We have considered the Senses, and the mind in an <u>active</u> state. ~~Some this~~ ~~texture and nature We proceed next to~~ ~~treat of them in that~~ ~~them~~ ~~passive~~ ~~[illegible]~~

Let us next ~~now that we~~ consider ~~it~~ them in a passive state, that is a state of Sleep. —

# of Sleep

The impressions which ~~excite~~ induce sensation
and thought, whether pleasant, or pain-
-ful, by their action upon the system,
wear ~~it~~ down ~~into~~ its excitement, & expend its excitability in such a manner
as to render Sleep necessary to renew them.

Sleep affords the same repose to sensation
and thought, or to the nerves and brain, ~~which~~ that rest does to motion,
or to the muscles.
It is as necessarily alternated with
waking, as light is with darkness.

~~St~~ ~~there~~ In describing it I shall

I consider its proximate cause.

II I shall inquire into its remote causes.

III I shall take notice of the state of the system
and of several phenomena which occur
in sleep, and

IV. I shall endeavour to explain the cause of Dreams, and of several anoma-lous facts connected with them.

I The proximate cause of sleep depends upon a certain fixed or determined grade of depression in the brain. It has been called by Dr Brown "the sleeping point." It has likewise been called "a healthy apoplexy". It is induced by an accumu-lation of blood in the venous sinuses, and spinal marrow. This has been demonstrated by the dissection of persons who have died in their sleep, also by the effect of pressing upon the brain denu-dated of the cranium in the Parisian beggar mentioned by Dr Boerhaave. A gentle degree of pressure induced sleep,

V of the proximate cause of sleep it will naturally occur to you that it is to all intents and purposes, a disease. Other proofs of its being so will be mentioned presently.

VI and according to the length of time in which they act upon the body.

but a greater degree of pressure induced
apoplexy from both of which he
recovered by removing the hand from
his ~~the~~ brain. In that grade of depression
of the brain in which sleep takes place,
the nerves ~~th it~~ refuse to ~~excite thought~~, become
the instruments ~~and the brain~~ of
sensation, and the brain of thought.
I shall place this grade ~~[illegible]~~ of depression, or the
sleeping point at 20° in the brain
and nerves, and ~~th~~wakefulness at 10°
above, or below it. From this history V
II The remote causes of sleep which
come next under our consideration
act in a relative manner, according ~~[illegible]~~
as ~~elevate~~ the brain is elevated above the sleeping,
or depressed ~~point, or depressed~~ below the sleeping
point. I shall divide these causes

& 2 such as act by expending
the excitability of the system, &
by that means reduce excitement.
and 3rdly into such as act by gently
and gradually elevating the system
to the sleeping point. To the first
Class of Causes belong

therefore into three Classes. 1 such as
act by the Abstraction of Stimulus &
~~[illegible]~~ thus ~~by [illegible]~~ reduce excitement.

~~[illegible]~~

1 The Abstraction of light, sound, and
muscular motion.

2 Certain evacuations particularly
bloodletting and purging.

3 Certain substances applied to the body,
such as Oil, Eider down, and the like.

4 Cold. The death which is induced by
Cold is always preceded by sleep.

5 The gratification of the venereal appetite –
– hence the saying "omne animal post
coitum tristat": it might have been
added – inclines likewise to sleep.

6 The cessation of pain – hence we

observe sleep generally follows parturition.
of certain sedative passions. Grief, and
even despair under certain circumstan=
=ces often induce sleep. I have more than
once seen mothers sleep soundly ~~after~~ the
night after the death of a child, and
Mr Akerman the keeper of Newgate
prison in London has often remarked
that criminals sleep profoundly the
night before their execution. Mr Custine
the son of General Custine informed
his wife in a letter written to her a
few hours before he suffered death by
the Guillotine, that he had slept nine
hours the preceding night. This ex=
=planation of one of the causes of

sleep vindicates the disciples of our Saviour from a Want of Sympathy with him in his sufferings. They slept during his agony in the garden only from an excess of their sympathy with him. matth: 26. verse 40.

The 2nd class of remote causes which in=duce sleep by expending the excitability of the system are

1 Labor. This is the most universal and natural cause of sleep. ~~It operates~~ when gentle, it kindly reduces the system ~~from~~ to the sleeping point.

2 Certain stimulating aliments & drinks, and certain narcotic substances, ~~& [illegible]~~ taken in such quantities as gradually to expend the excitability &

reduce the excitement of the System

3 Certain sounds, particularly the noise of a City in persons who have not been accustomed to it.

4 Heat applied to the body. ~~Heat ... ~~ ~~...~~

5 The long and painful exercise of the Understanding upon any one Subject. Generals often sleep soundly the Night before a battle, from the excite=ment of their Systems being gradually reduced by the arrangements of the preceding day. —

The 3^d Class of Causes which gradually elevate the System to the Sleeping point are

1 Gentle labor or exercise particularly

walking, riding in a Carriage, and rocking in a cradle.

2 The moderate stimulus of Aliments and drinks. Hence we observe many people who are in the habit of eating a small ~~meal~~ supper pass sleepless, or restless nights, if they go to bed without taking a little food. Small doses of Opium & fermented liquors - also tea, and Coffee have the same soporific effects upon the System. Take notice here of the relative effects of tea. It ~~&~~ both prevents, and induces Sleep. When the System is nearly at the sleeping point, it elevates it above it, and thus prevents Sleep, but when it is 8 or 10 degrees ~~also~~ below it, which is the case

after great fatigue, it induces sleep by
elevating the system to the sleeping
point.

3 Certain Sounds. The inhabitants of
the neighbourhood of the falls of the Nile
are unable to sleep when they leave
home from the absence of the customary
stimulus of sound. I knew a Watchma-
-ker of this city who had been ~~had~~ in the practice ~~could not sleep~~
of ~~having a~~ carrying all the ~~table cloud with~~ watches
~~without a table~~
~~in his bedroom in order to~~ in his
shop, and placing them upon a
table in his bed room every night
in order to prevent their being stolen.
When this watchmaker went abroad
he was unable to sleep until he pro-
-cured from ~~all~~ the persons in the

families in which he visited all their
watches and placed them in his own
when he went to bed. The falling of
rain upon the roof of a house, and
the "lenis susurrus" of the poet, or
the humming of the bee often induce
sleep in the same way.

4 moderate warmth by raising the
excitement of the system to the sleeping
point, brings on sleep, — hence the good
effects, in some cases, of the pediluvium.

5 Certain acts or exercises of the mind which
exert a stimulus exactly proportioned
to the degree of reduction of the system
below the sleeping point, — these are think-
-ing upon some one uninteresting
subject, or counting an 100 backwards.

6 Even the stimulus of light in this
state of the system often induces sleep.
— This I have often observed in sick
people who are unable to sleep ~~pass sleepless nights~~ during
the Darkness of the night, but who
drop asleep as soon as the light of
the morning breaks in upon them.
I have once ~~[illegible]~~ substituted the light
of a candle to that of the sun in a
patient ~~who was~~ who was unable to
sleep, with the happiest effect. I was
encouraged to recommend this remedy
by hearing of a lady ~~who~~ in this city
who cannot sleep without a lighted
candle in her room and who suddenly wakes
if ~~from any accident~~ her candle
burns ~~goes~~ out during the night. —

V 2ly. It is necessary for the remote cause to wear away the excitability of the System, and thereby to im= 2
=pose upon it ~~produce~~ ~~for~~ a cessation of sensation, that & motion.

3ly V The operation of all the remote causes of Sleep which have been mentioned is much aided by a recumbent posture of the body. It favours the ~~the~~ accu=
=mulation of the ~~venous~~ blood in the venous sinuses and spinal marrow upon which I said the proximate cause of sleep depended. —

It is necessary ~~to~~ for the production of Sleep that its remote causes should wear away the excitability of the nerves, muscles and blood vessels ~~should be reduced to the same points~~ in equal proportions, ~~in the~~ unless this be the case Sleep cannot take place

In order that all the three classes of stimuli should induce sleep it is necessary 1st they should act upon the ~~[illegible]~~ brain, the nerves, ~~and~~ the muscles & the blood vessels in an equable manner. Thus if ~~[illegible]~~ ~~nervous debility~~ the excitement of the brain & nerves were at 20°: and muscular and arterial excitement ~~debility~~ above or below 20°: perfect or healthy sleep could not take place. Until a perfect harmony was established between those great and extensive surfaces of impression. They are brought to par by medicines and exercises in some cases which act alike upon them all; but equality of excitement ~~debility~~ is sometimes induced by certain medicines or exercises which act exclusively upon a part of them.

Thus Asafœtida will induce sleep better than Opium when the brain and nerves are below par - Wine, when the ~~debility~~ minus excitement is seated in the blood vessels, and exercise, when it is seated in the muscles. Opium is most proper when all three of them require an elevating stimulus.

2 In order that sleep may be induced by its ~~remote~~ causes, it is necessary that they should act equably upon each of the great surfaces of impressions that has been mentioned. Thus we shall in vain attempt to sleep if heat be applied to every part of the body except the feet, or if the ~~mus~~ brain be exercised upon one subject, or if the muscles of the limbs be exercised, while those of the trunk have

remained at rest, or if the blood vessels
of the lungs have been unusually agi-
-tated by speaking, or coughing, while
other parts of the sanguiferous system
have been performing their ordinary
actions. In all these cases the remedy
~~is to arise from~~ should consist in the
application of such a stimulus as will
elevate or reduce the deficient part of the above
surfaces of impression to the sleeping point.
When it is seated in the ~~muscles or blood~~ brain, subjects of
~~vip~~ conversation, or business different
from those which have employed the
mind during the day will induce sleep,
~~or~~ the same effect will be induced by
~~jumping~~ rising from bed and walking
across a bed room, if the whole muscular

system has not been exercised on the previous day. This was Dr Franklin's remedy when he was unable to sleep from the want of ~~[illegible]~~ general muscular exercise. — I beg your attention to these facts. They are of extensive application in the practice of physic, and a knowledge of them ~~distinguish~~ ~~will~~ is indispensably necessary to a physician. ~~[illegible]~~

3 The operation of all the remote causes of sleep ~~to~~ is much aided by a recumbent posture of the body. It favours the accumu-lation of blood in the venous sinuses, and spinal marrow upon which I said the proximate cause of sleep depended.

~~In order that all ~~those~~ the three classes of stimuli should induce sleep it is necessary that they should act equably upon the system. Thus we shall in vain attempt to sleep if heat has been applied to every part of our bodies except our feet, or if the labors or exercises of the day have not called into action the muscles of the limbs as well as those which move the trunk of the body.~~

~~From the history of the~~

I have thus delivered the history of the remote causes which induce natural, or ordinary sleep. From the manner in which they operate it will be easy to explain the cause of that kind of sleep which is of a preternaturally morbid nature, and which is induced by an excess

in the force or in the sudden application of those causes which induce natural sleep, as also by contu=
=sions, or a compression of the brain.
Opium, Tobacco wine ardent Spirits, & aliment ~~[illegible]~~,
when taken in large quantities suddenly
induce ~~the~~ an accumulation of blood in the
Venous sinuses and in the Spinal mar=
=row, and thus bring on a preternaturally ~~morbid~~ sleep.
The phlogisticated Air or Azote that is ~~—~~ respired Air, induces
sleep in this way. Mr Alliman discovered
that animals which sleep during the winter
are made to do so, not by the sedative action
of the cold, but the expired themselves of their
own breath, for he found by dragging one
of them out of his winter retreat, that ~~he~~ it
constantly revived when exposed to the
Air even though it was below the freezing

point. The sleepiness which is often
induced in crowded assemblies is in part
the effect of respired air or what is called
Azote acting by its stimulus upon the
brain. A higher degree of this stimulus
induces a sleep so profound as to terminate
in death. The ~~vapour~~ air emitted by
burning charcoal produces ~~the~~ sleep &
death only by its excessive stimulus. The
sleep in all these cases is preternaturally morbid, from its
excess only, for the causes which induce
it are exactly the same with those which
bring on natural sleep. — It differs from
natural sleep further in not being accom=
=panied with an expenditure of the excita=
=bility of the system. The excitability is

only ~~suspens~~ suffocated in these cases with
the sudden ~~suspen~~ reduction of the ex=
=citement, - hence we find when the
sleep goes off which is thus forced, it
leaves the system in a highly excitable
state, and disposed to take on morbid
action from ~~the~~ slightest irritants. It
is - ~~for~~ by forcing sleep in this manner
by means of Opium, that mischief is so
often done by that noble remedy. This
~~can~~ is never the case when it is given gra=
=dually or in such ~~a~~ doses so as to expend the excitability of
the system before the brain is reduced [or
elevated] to the sleeping point. Take notice
here that Opium and other narcotics dissipate
the excitability from the animal, ~~functions~~

only, and not from the natural & vital functions.

III. Let us next attend to the phænomena and State of the System during Sleep.

It generally comes on with a prick=ing Uneasiness in the eyelids – a difficulty in keeping them Open – weakness, and pain in the limbs. This pain is so acute in Children as sometimes to make them cry. It is the effect of disease or of a morbid excitement invited by pre=vious debility in the muscles of these lower extremities. The intellects next be=come dull, – the head totters, – then the trunk, – and last of all the whole body falls into a horizontal position. There

appears to be a certain order in which the senses retire, or close themselves against external impressions. The eyes first fall a sleep, - then taste - then smell, - then hearing, and last of all the sense of touch. That the sense of touch reposes last, ~~in sleep~~ I infer from our changing our positions in bed after we fall asleep. Indeed this sense seldom reposes itself completely; & hence we lift up the bed clothes when we are cold, - drive flies from our faces, take hold of a chamber pot, and make water in it, and perform several other actions from impressions upon

the Sense of touch ~~with~~ ~~to~~ ~~[illegible]~~. ~~[illegible]~~ without being Conscious of any of them. There is a Considerable Variety from idiosyncracy in the order ~~in the order~~ in which the Senses retire to rest in different people. ~~from idiosyncracy~~ There are some people in whom the ears appear never to be closed by Sleep. These people are awakened by the lightest noises. ~~Some~~ again, we see others ~~who are~~ in whom the Sense of Smelling and taste appear never to repose in Sleep, hence they awake from the ~~feeblest~~ impressions of the weakest odors, and from a bitter or nauseous Sensation upon the tongue.

The muscles like the Senses retire

in a regular order when they relax in sleep. The muscles which belong to the arms and legs fall a sleep first, - then those which support the head, and last of all, those which support the back. But there is in some people an inversion of this order from idiosyncrasy. There are instances likewise in which a part of the muscles only are relaxed, and others, in which they all retain their natural tone. Thus we see some persons sleep in a sitting posture, - here the mus= =cles of the back are in action, - again we see others sleep in a standing posture as slaves when waiting upon table, and lastly we see some persons ride

walk while they sleep, particularly soldiers who have long been deprived of their sleep, also those persons who walk in their sleep from the disease called somnambulism. ~~It is remarkable that~~ nerves and muscles and bloodvessels are sometimes at variance upon the subject of sleep. Thus while muscular debility at 20 invites to it, nervous and arterial debility ~~[illegible]~~ below 20° prevent it. The reverse of this remark is equally true. They are to be brought to par by medicine and exercise. sleep is never perfect, until ~~this~~ there is a perfect harmony in the state of debility and excitability between those three great and extensive surfaces of impression.

~~Johaus~~ Having described the gradual manner in which sleep usually comes on, ~~but~~ it remains that I take notice that it some=times comes on suddenly. In this case we generally start in our sleep, from the too sudden abstraction of stimulus, particularly the stimulus of thought. It is most apt to occur when the system is worn down to the verge of the sleeping point by great fatigue. It shows ~~that~~ how much the body is related to many other kinds of matter in its constant tendency to an equilibri=um. —

The usual phenomena which attend sleep are

1 The loss of motion in all the muscles

which are under the influence of the Will.

2 the suspension of Sensation. We are unable to see hear, smell ~~taste~~ & feel in profound Sleep while the System is exposed to ~~was done under~~ the ordinary impressions of the Waking State.

3 the Diminution of irritability in certain parts of the body – hence the Causes which excite Cough and Asthma, & hence even a stone in the bladder, cease to act with their usual effect upon the System. Hun-ger ~~and~~ is sometimes suspended, ~~by it~~ & thirst completely chased away by it.

4 the involuntary motions are slower in the sleeping, than in the waking state. This is perceptible in Respiration, and in the strokes of the pulse, and arises from the

abstraction of the stimulus of muscular
action, and the influence of the mind upon
the body. The pulse becomes not only slower,
but fuller in sleep. It would seem as if
the arteries borrowed ~~[illegible]~~ a portion of ~~the~~
~~[illegible]~~ excitability from the nerves,
~~and~~ muscles and the other systems of the
body, and employed it ~~of~~ in watching over
them during their repose in sleep. Perhaps
the additional fulness and strength of the
arteries manifested in the pulse, may
be derived from the stimulus of the blood
accumulated in the venous sinuses, &
spinal marrow, and from the ~~[illegible]~~ relaxation
of the skin which takes place in the
sleeping state. But further, the peristaltic

motion of the bowels is lessened during
sleep. This is obvious from the suspension
of a diarrhoea, and of an inclination to
stool which we so often observe to take
place in the night. Perhaps the dimi-
-nution of the sensibility & irritability of
the Spincter Ani may be another cause
of the suspension of the inclination to
stool during the continuance of sleep.
5. All the secretions are increased during
sleep. This is ~~a~~ most obvious in the greater
~~quantity~~ ~~secretion of~~ Urine and bile. It is from
the increased secretion of bile during the
night that a puking of it takes place
so frequently in the morning, & at no
other time. A french writer Mr Fabre
has very happily said there are two

powers analogous to those which govern the planetary system always at work in the human body. These he has called ~~a~~ centrifugal & centripetal ~~& centrifugal~~ powers. The former is most active in the waking, - the latter in the sleeping state. It is from the ~~increase of~~ greater activity of the centripetal power that the secretions ~~are~~ which are carried on in the internal parts of the body, are greater in sleep than in the waking state. Bichat has ~~called this~~ ascribed this increase in the activity of the secretory organs "organic life" to distinguish it from the voluntary muscular actions which he ascribes to what he calls "animal life."

V ~~and~~ hence ~~too~~ the reason why we so often wake so soon after we drop asleep with a sense of chilliness and

N ~~&~~ Death is moreover induced by 12° of cold when asleep, but the system ~~urge~~ will bear a much greater degree of cold ~~to~~ without the extinction of life in the waking state.—

 [illegible]

6 The excretions are lessened during Sleep.
This is probably owing to the diminution
of the sensibility and irritability of those
parts of the body in which the ~~secreted~~
excreted matters are ~~contained~~. The
suspension of the excretions in sleep is
perhaps one reason why great sleepers
become so very fat.

7 There is a diminution of the heat of the
body soon after falling asleep; hence one
reason why persons who sleep in the open
Air are more apt to take cold, than persons
who pass the night awake. The diminution
of the heat of the body I said formerly according to Mr
Hunter is 1° of Farenheit. This fact
I know is contradicted by experience.
~~love~~ sometimes we observe an increase

of heat during sleep. This may arise from two causes, - its confinement under the bed cloathes, & its reaction upon the body, or from a slight degree of the ~~degree~~ ~~fever~~ fever which attends sleep and which not only increases heat but destroys its equilibrium & throws a greater quantity of it to those parts to which the thermometer is applied in determining this question. This fever often goes off in the night or in the morning with a gentle perspiration.

8 The system is weaker in sleep, than in the waking state, - hence bilious fevers, gout, - Epilepsy and many other diseases often ~~all~~ make their first attack in the night. ~~It has been found in France that soldiers and war horses that are marched at night~~ ~~[illegible]~~

V ~~and~~ studious men who both feel
and think sleep more than labourers
Who have ~~lp~~ but little sensation to recruit,

I wish you to remember this fact,
for I shall avail myself of it in ex=
=plaining the proximate cause of dis=
=ease in our pathology. ——

§ The duration of sleep is different in
different ages, - habits and animals.
Children sleep ~~less~~ more than adults, &
abortive children more than children
born at the end of nine months. Old
people ~~[illegible]~~ sleep less than persons
in middle life. ~~and~~ Carnivorous
animals more than herbivorous. The
reason is, - the food of the ~~latter~~ former is
~~more~~ taken in less time, and is more
nourishing than the food of the ~~former~~ latter.
~~which~~ The duration of sleep is always

too long when it exceeds 8 hours in the four and twenty. Many persons have attained to great age and enjoyed good health who have slept much less. Mr Neal in his history of the Puritans mentions the name of a Clergyman who lived to be above 70 years of age who slept but four hours in the four & twenty. Mr Westley who lived to be 86 slept but 6 hours, ~~in~~ and Mr Whitefield but 4 in the same time. The last of those men it is true died at 52. His sleep I have been told, was so profound during those hours, that it was very difficult to wake him. Few men who have been much distinguished in life have been ~~great~~ long

sleepers, and for an obvious reason. they live a 5th or 6th part longer than other people to perform exploits which procure them preeminence in society. The times of sleeping & waking are regulated by habit, or what might more properly be called aposition of motions. From 6 to 7 to seven hours sleep are end for any constitution.

Where sleep is perfect ~~sound~~ or profound, there is no consciousness of the lapse of time. I have read an account of a man Foxley who lived in the reign of Henry the 8th of England, who slept 44 days and nights and awoke at the end of them as if he had slept but a single night.

I have met with several old

old people who have told me they passd whole nights without sleeping who not=
=withstanding enjoyed good health. Seneca says Mecænas passd three years without sleep. The late Bishop of Bangor told Sir John Pringle that he had not slept an hour for ten years. ~~and I thought were~~ these persons sincerely believe what they say, but I am satisfied they deceive themselves. That this is the case I am certain, for a young lady who had often heard her mother complain of passing whole nights without closing her eyes, in=
=formed me that she had once watched her mother during one of these suppo=
=sed sleepless nights, and that she appea=
=red to sleep as soundly as ever she

V Persons who paſs sleepleſs nights generally feel torpid or stupid the next Day. This torpor or stupor or both, are kindly ~~[illegible]~~ induced in order to give time for a new recruit of excitability for the purposes of ~~motion~~ sensation & thought. — V.

go to loose sheet

had seen any body in her life. Dr
Gresham in like manner says that
~~the~~ he has seen sleep in patients in the
nervous fever who denied afterwards
that they forgotten themselves. The
sleep in all these cases ~~[illegible]~~ goes off
in the same gradual manner in
which it comes on, and hence ~~the~~
~~[illegible] of~~ the time in which
it has taken place is not recollected.
V We awake from sleep more sudden-
-ly than we fall asleep. The causes which
revive us are the stimulus of the mor-
-ning light, and of the urine ~~[illegible] of~~ which
has accumulated in the bladder during
the night. Habit likewise independently
of these stimuli disposes us to wake

36 Opposite side.

V. From the history of the phaenomena of Sleep which ~~have~~ has been given, you will ~~anticipate~~ ~~an~~ perceive that it is a naturally morbid state of System ~~or~~ or in other words a disease. It is preceded by debility & sometimes by a chilliness — it is attended with ~~con~~ that state of the brain which takes place in Coma, or a low degree of apoplexy; also with Delirium, or what are called dreams. The excitement of the System is unequally diffused. ~~to~~ ~~Excitab~~y Irritability & sensib.y are lessened — The pulse becomes preternaturally full & slow, and in some instances the tongue becomes dry — and furred. There is an increase of heat, This is often perceived in the morning. ~~Be not sur~~ Sleep has been said to be tendency to death — and for a just reason — the whole body is in a diseased state when it takes place. I have called the disease of Sleep morbidly natural. ~~In this see~~ There are several other of the natural or ordinary

functions of the body that are equally morbid
with sleep as I shall say hereafter. Be not surprized
at these assertions. Look around you and
see whether similar morbid phænomena do not
take place ~~with the~~ in other parts of the material
World? what are storms by sea & land, but
diseases in the atmosphere intended to
~~the means of~~ preserv~~ing~~ the purity of the Water
and Air ~~upon~~ which support the millions
of creatures that inhabit them? ~~what are~~ and yet
these storms are all natural. ~~They belong~~
~~to the ordinary & natural [illegible]~~ an atmosphere
uniformly calm, ~~would be~~ is unnatural. ~~Then~~
Recollect what was said formerly, that
~~I shall resume this subject in its more appro-~~
~~-priate place hereafter, and shall I hope~~
~~prove to you that~~ we are kept alive by
our diseases, as certainly (tho' in less degree)
as we are by ~~our~~ Air and Aliment. These diseases
natural are ~~to~~ such as are preternatural,
what ~~pleasure~~ is to pain. They depend on ~~the~~ different
degrees or force of the [illegible] impressions.

at a certain hour. The mind
first emerges from its repose, – the
ears are then opened, – ~~the~~ vision
is restored, – ~~and last of all~~ we feel our
relation to the objects which touch
our bodies; and finally we recover the
exercises of the senses of smell & taste.
We next rub our eyes – stretch our
limbs, – gape, – sneeze – or cough, and
all this in order to diffuse ~~the~~ excite-
-ment and excitability in every part
of the body in an equable manner.
I confine this account of the manner
of our waking ~~[illegible]~~ from sleep only
when it has taken place in a recum-
-bent posture of the body. We awake
more suddenly from a nap upon
a chair. The equilibrium of ~~the~~

~~the circulations as well as~~ of excite=
=ment and excitability is thus more
promptly restored. and the blood which
stagnated in a less quantity in the venous
sinusses and spinal ~~brain~~ more readily
finds its level in every part of the body.
It is for these reasons that we wake
after sleeping in a chair without any
sense of uneasiness, and ~~prepared~~ disposed at once
to study and business. In this way only it is said
the Roman Emperor Augustus refreshed
himself after the toils of the forenoon.
~~That~~ In adopting this ~~practice~~ mode
of sleep care should be taken to prevent
the inclination of the neck or body,
otherwise the brain will suffer much
more than from sleeping in a recum=
=bent

posture.

The state of the body and mind im-
-mediately after waking deserves our
attention.

From the abstraction of a part of the stimuli
which impart life and strength to the
body during the night it is much
weaker than during the day, hence
consumptive people cough most in the
morning, and hence the slow and
feeble steps with which labourers advance
to their work ~~bef~~ soon after they rise
from their beds. Even the face discovers
marks of a relaxation of muscular
tone ~~in the~~ after sleep, hence ~~fa~~
~~people~~ middle aged people look older,
and handsome people ~~are~~ less beautiful

√ It is from the greater debility of the body in the morning, that fear is more sensibly felt at that time than at any other. The Indians are so well acquainted with this fact that they generally attack their ene=
=mies at day light. This was the case on the 4th of November 1791 when they defeated General St Clair on St Marys river, also on the 6th of Nov.r 1792 when they attacked Major Adair near Fort St Clair, and latterly when they attacked Gov.r Harrison on the 7th of Nov.r 1811.

early in the morning than they ~~are~~ do ~~at any other times~~ after the stimuli of the day have acted some hours upon them. It is remarkable that in that season in which the debility induced by sleep is most sensible, that is in the spring and summer, Heaven kindly provides the odor of flowers, and the music of birds to obviate it, and thus gradually to prepare us in the morning for the labors and duties of the day. ~~The~~ This history of the state of the body after sleep should never be forgotten by a physician. The knowledge of it is of great application to the practice of physic.

The Faculties of the mind are very different in the morning from what they are in the subsequent parts of the day.

8 By the occupations of the day they are often jumbled together, so as to act with less regularity and order than they do immediately after a nights sleep. Each faculty now settles, as if by a law similar to that which determines the arrangement and order of solid bodies by their specific gravities. The Under=standing and all the rational faculties act now ~~out~~ with promptness and order, and hence the preference that is every where given to morning studies, and hence too the universal practice of consul=ting our pillow in all new & difficult enterprizes. It should be our morning pillow only. The moral faculties now occupy the highest and most honourable

station in the mind, while all the passions are precipitated to the bottom of it. hence men are less disposed to fraud and wicked=
=edness soon after they awake from sleep in the morning than they are some hours after the moral faculties have kept company with the Understanding and the passions.